# Enhanced Forest Management Pilot Project

## 2000/2001 Annual Update

*Participants at a workshop on non-timber forest products braved inclement weather to learn more about the spring fungi of the Robson Valley.*

photo by Andy MacKinnon

The Enhanced Forest Management Pilot Project (EFMPP) has entered its fifth year. Established in September 1995, the project's objective is to reduce downward pressure on timber supply while reflecting changing public expectations about forest practices. Four pilots, described in this annual update, continue to pursue activities that will yield operationally relevant results related to enhanced forest management. The 1999/2000 annual update provided preliminary information on the pilot activities, and this year's update summarizes continued progress.

The first four pilots were recently joined by another, one initiated by Canadian Forest Products. The Canfor pilot will investigate mixedwood management in northeastern British Columbia in relation to the EFMPP goals and objectives, and will incorporate and build on the results already achieved by the other pilots.

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# Enhanced Forest Management Pilot Project

www.for.gov.bc.ca/cpp/enhanced/index.htm

## 2000/2001 Annual Update

*This annual update provides highlights of EFMPP activities and progress to March 2001.*

### EFMPP Goals and Objectives

The goal of the EFMPP overall is to optimize the potential productivity of the available forest landbase within the parameters required by existing land use plans and the Forest Practices Code. This is to be done by:

- empowering local forest managers to develop a dynamic forest management strategy with emphasis on increased timber production in suitably zoned areas;
- exploring the biological effectiveness and economic efficiency of employing enhanced forest management in selected forests; and
- transferring knowledge and technology to resource managers, researchers, professionals and forest workers.

The pilots also have specific objectives that stem from the general ones listed above.

The final product of each pilot is a management strategies report that recommends changes to policy, procedures and legislation based on analysis of the project's technical findings and the interpretations of the project's working group for improving forest management.

The EFMPP is a cooperative effort between industry, the Ministry of Forests, the Ministry of Water, Land and Air Protection (formerly the Ministry of Environment, Lands and Parks), Forest Renewal BC, labour and the academic community. A provincial steering committee leads and monitors the EFMPP by providing support and assistance to the pilot projects, each of which covers a range of ecosystems and resource values. A locally based working group directs each pilot to test the value of the different activities for broader operational application and, with the help of the steering committee, develops and implements the local forest management strategy.

Communication with the public and with practitioners who will apply the pilot project findings throughout British Columbia is key to the EFMPP's overall success. The steering committee and individual pilot projects have undertaken various activities to inform both audiences about EFMPP progress and findings. For example, the second technical EFMPP workshop, held in February 2001, focused on spatial analysis techniques. The following month, a half-hour video about the EFMPP was produced by WestLand and aired on the Knowledge Network. As well, all pilots are extending activity results that affect operational practices. Extension methods include the hosting of technical workshops, the production of summary publications, and the development of website access to reports and other relevant information.

*Locations of the four EFMPP sites in British Columbia*

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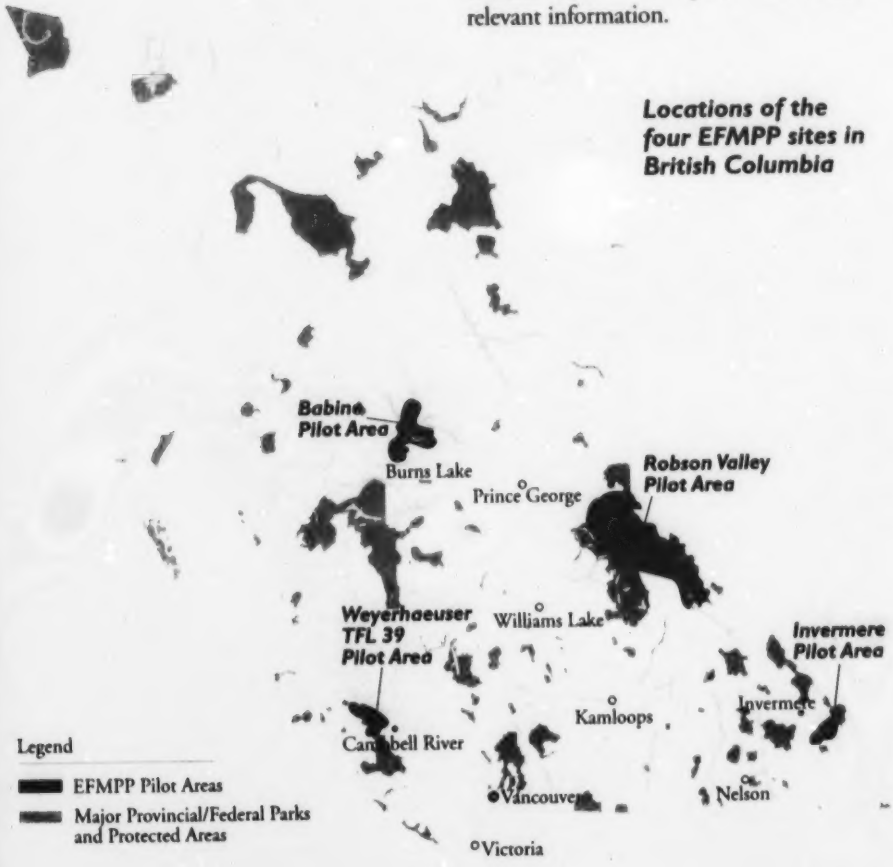


***Locations of the four EFMPP sites in British Columbia***

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This pilot began in March 1999 and is managed by the Robson Valley Forest District of the Ministry of Forests. The EFMPP study area covers the entire district and lies largely in the Rocky Mountain Trench. The Robson Valley EFMPP is addressing landscape-level biodiversity management and conservation and the integration of a sustainable and diversified supply of all forest resources across the Robson Valley Timber Supply Area (TSA).

Key projects in 2000/2001 fell into five main categories:

- **Biodiversity Conservation Design** – Projects have included a study of western hemlock looper natural disturbance, a study of stand structure change over time in old-growth forests, grizzly bear habitat mapping, the analysis of habitat and biodiversity modelling in the provincial Timber Supply Review for the Robson Valley TSA, bull trout habitat identification, ungulate winter range modelling, and caribou habitat surveys.
- **Socio-economic** – Projects have included a socio-economic impact analysis of the Robson Valley TSA, an analysis of public involvement and community stability, and the measurement and incorporation of non-timber values into management scenario planning.
- **Timber Supply and Growth and Yield** – A cost study of partial cutting and clearcutting is at the reporting phase, and a comparison of seedling responses in partial cut and clearcut silvicultural systems is complete.
- **Multiple Resource Design** – The two ongoing projects in this category include research on non-timber forest products (mushrooms and botanicals) and two-year-cycle budworm risk model validation.
- **Landscape Modelling and Scenario Planning** – The sole project in this category, now completed, was the development of a natural disturbance model for the Robson Valley (see sidebar).

## *Achievements in 2000/2001*

- Construction of a spatial model, the Robson Valley Landscape Model, that incorporates forest growth, stand succession, harvesting and natural disturbance (see sidebar)
- Production of bull trout habitat maps and a classification map of grizzly bear habitat in avalanche chutes
- Publication of seven technical reports for the Robson Valley (available on the pilot website), covering:
  - a study of western hemlock looper and natural disturbance in the ICHwk3;
  - a comparison of partial cut and clearcut harvesting methods in old ICH forests in the central Interior;
  - a comparison of seedling responses for clearcut and partial cut silvicultural systems on zonal sites in the ICHwk3;
  - development of an ungulate winter range model with reporting of field results;
  - findings from Robson Valley caribou habitat surveys;
  - a study of the life cycle, defoliation and impact of the two-year-cycle budworm; and
  - an analysis of tree ring records of two-year-cycle budworm outbreaks in the past 120 years.

Implementation of Robson Valley EFMPP results will begin after scenario planning (which includes modelling) in 2001/2002. This will be followed by the publication of decision scenario output reports and development of a sustainable forest management plan in 2002. From the strategies recommended in the plan, the best options will be chosen in 2002/2003 for implementation.

### Modelling Natural Disturbances and Management Scenarios in the Robson Valley

Non-recoverable losses from natural disturbances such as western hemlock looper and wildfire are a significant forest management problem in the Robson Valley. These disturbances create losses that are unpredictable in space and time and often unsalvageable. For this project, a spatial model for forest dynamics was developed – the Robson Valley Landscape Model (RVLM) – to assess the vulnerability of timber supply to non-recoverable losses.

The RVLM is capable of incorporating forest growth, succession, harvesting and natural disturbances. The model was used to compare the assumptions about disturbances from the Timber Supply Review model and assumptions used in "process-based" models, in which disturbances were allowed to act in the way that they are believed to do. The analysis demonstrated that the TSR assumptions about natural disturbances do not generate ecologically reasonable natural disturbance dynamics. According to the assumptions, disturbances were constant in time, occurred only on the Timber Harvesting Land Base, affected older stands first (and only those above Minimum Harvest Age), and did not violate management constraints. The consequences of these assumptions were that harvest levels were reduced and the area naturally disturbed increased through time, even though no change in the disturbance regime was assumed.

The alternative, process-based models resulted in more intuitively reasonable behaviour of natural disturbances. In particular, these models appeared to preserve key features of the disturbances, such as area affected and return periods. As well, the models showed how natural disturbances responded to changes in the forest composition across the landscape (showing, for example, continued attack by hemlock loopers on old hemlock stands). This modelling approach predicts current unsalvageable losses that are similar to the current values used in the Timber Supply Review, but predicts future losses that are lower.

The project team anticipates improving the RVLM in 2001/2002 by: improving the succession model to account for post-disturbance changes in species composition; adding partial cutting and planting sub-models; and further developing the western hemlock looper sub-model to incorporate current research available through the Robson Valley EFMPP. The RVLM will be used to provide input to the EFMPP scenario planning process and to analyze scenarios about the impact of natural disturbances.

*The black morel* (Morchella elata) *is one of BC's commercially important mushroom species, gathered for personal use and for export. This species is widespread and sometimes abundant in the Robson Valley in springtime. This black morel was photographed in the Beaver/Holmes Valley.*

photo by Andy Mackinnon

### Genetically Improved Stock

As shown by Ministry of Forests progeny tests, the growth and productivity of lodgepole pine stands can be improved over the long term through the planting of seedlings grown from genetically improved seed. However, some studies have shown that the best genotypes (families) under one set of growing conditions are not necessarily optimal under others. Furthermore, Comandra blister rust (*Cronartium comandrae*) is a significant forest health risk for lodgepole pine in parts of the BC Interior. The Genetically Improved Stock activity set out to determine whether (1) choice of the best genotypes depends on crown form and inter-tree spacing, and (2) resistance to Comandra blister rust is genetically controlled.

Established progeny trials at two sites showed that crown form varied among families. Some families displayed long branches that seem to persist even in deep shade; others displayed shorter branches or branches that died when shaded. Crown form may influence a family's ability to capture the site, and also to use resources efficiently if growing space is limited. Should family rankings for growth rate vary significantly with stand density, this aspect may need to be incorporated into progeny test designs. These results and the activity's questions are being further investigated through the establishment of family plots grown at different inter-tree spacings.

Analysis of Comandra blister rust incidence revealed large variation in family infection rates as well as a high degree of genetic control. Infection rates ranged from zero to 69% of the 32 trees per family planted. Although this sample size does not allow accurate ranking of all families, the results confirm that the most heavily infected families are more susceptible to Comandra blister rust than are the least infected families. This implies that seed orchard managers could put together "tailored" seedlots of resistant families for planting in especially Comandra-prone areas, thus reducing losses to this disease. More precise rust resistance screening trials are being planned in cooperation with the Morice & Lakes Innovative Forestry Practices Agreement.

The existence of family variation in crown form and Comandra rust resistance may contribute to increased forest productivity, through more efficient use of available growing space and increased survival of disease-resistant planting stock.

Babine Forest Products, based in Burns Lake, initiated its EFMPP in July 1997. The pilot is located in the north-central Interior of the province within the Lakes TSA. The primary objectives of the Babine EFMPP are to double the mean annual increment as determined in 1997, maintain or increase timber supply, and test new and innovative forest management practices. The secondary objectives are to create employment and training opportunities, practise enhanced forest resource stewardship, strengthen and build community partnerships, and share and transfer information.

## *Achievements in 2000/2001*

- Publication of nine final reports (available on the pilot website), covering:
  - Phase 2 of the TEM/PEM comparative analysis of terrestrial and predictive ecosystem mapping methods (purpose of the analysis: to compare and contrast four ecosystem mapping methods with TEM, and assess the accuracy of the PEMs for specific operational purposes);
  - Phase 1 of the Vegetation Resources Inventory (which provides a spatially detailed, operational inventory with enhanced utility for resource planners);
  - utilization of Problem Forest Types (PFTs) (an updated operational-level inventory of PFTs was carried out to seek additional timber volume for harvesting);
  - application of the growth and yield program, including the Mixedwood Growth Model (to model mixedwood stand structure and volume), which uses the Tree List Generator to set initial characteristics of merchantable stands in the SBS biogeoclimatic zone for modelling;
  - development of a coarse woody debris database for the Babine EFMPP landbase (by biogeoclimatic zone and variant, stand type and stand age);
  - performance assessment of genetically improved stock (see sidebar); and
  - roads and landings areal determination and rehabilitation (this activity involved quantifying the degraded and self-rehabilitated areas resulting from roads and landings, and rehabilitating some candidate areas).
- Release of a revised timber supply base case report using the first Timber Supply Review (TSR1) and a traditional harvest flow
- Sharing of Babine EFMPP critical data through the website
- Publication of an article on the Genetically Improved Stock activity in the spring 2000 edition of *TICtalk*, produced by the Forest Genetics Council of BC
- Publication of an introduction to the Babine EFMPP in the Nov./Dec. 2000 issue of the ABCPF's *Forum*
- Presentation of activity results at a technical workshop held in Burns Lake, May 2000
- Publication of 10 technical summaries on activities completed in 1999/2000 (also available on the pilot website)

The Babine EFMPP will conclude in the 2001/2002 fiscal year once technical summaries of the recently completed activities are produced. Four long-term activities have been submitted for continuation by the Morice & Lakes Innovative Forestry Practices Agreement. The Babine EFMPP management strategies report, to be published during the fiscal year, will provide a comprehensive summary of the activity findings for implementation.

photo by Sally John

*Comandra blister rust (*Cronartium comandrae*) on lodgepole pine in the Babine EFMPP.*

This pilot project, managed by Weyerhaeuser's BC Coastal Group, began in April 1996 and covers Block 2 of TFL 39 on north-central Vancouver Island. The pilot is exploring and testing ways in which past forest management practices might be changed so that desired future forest conditions can be achieved. This effort will be grounded in sound science and supported by an adaptive management framework.

The pilot activities are based on differences between spatial and aspatial analyses that use a variable retention approach. Since the inception of the Forest Project in June 1998 (to phase in variable retention systems and stewardship zones), the overall objective for this EFMPP has been to evaluate the implementation of retention systems. The approach being used is to develop an adaptive management program that focuses on key ecological and silvicultural uncertainties.

## *Achievements in 2000/2001*

- Publication of two reports: an overview of the pilot, and a summary of its earlier Phase 1 (both available on the pilot website)
- Spatial comparative analysis of timber supply, comparing the effect of spatially based constraints on variable retention and clearcutting harvest schedules and on volume, value and habitat supply

Significant progress was also made in developing the adaptive management framework, including implementation of monitoring using three indicators: coarse filter (ecological representation), medium filter (structural attributes), and fine filter (indicator species). A number of pilot studies on potential indicator species are also underway, such as the gastropod study (see sidebar).

The adaptive management framework will be completed by the end of 2001, and will detail the operational implementation of adaptive management to begin in 2003. The framework will detail the three indicators mentioned above and explain why they are being measured, how they will be measured, and how the answers will be used to inform and modify operational practices. Between now and 2003, pilot studies on indicator species will be completed and key indicators selected.

### Gastropod Pilot Study for Adaptive Management

The adaptive management program uses a range of potential indicator organisms and structures to examine how effectively various retention systems and stewardship zones are able to achieve ecosystem management objectives. Terrestrial gastropods (slugs and snails that live on land) are one group of species being considered as bio-indicators. They are good candidates because they are sensitive to changes in moisture, temperature and forest floor structure – elements modified by timber harvesting.

The overall objective of this pilot study was to evaluate the effectiveness and efficiency of gastropods as indicator species for an ecological monitoring program. Being monitored was the effectiveness of variable retention systems in maintaining biological richness. The specific objectives of the pilot study were to: (1) characterize the distribution, diversity and habitat use patterns of gastropods in variable retention cutblocks and adjacent unlogged areas; and (2) assess the feasibility and efficacy of using gastropods as indicator species, by testing different sampling methodologies.

Five sampling techniques were used to survey 27 native species of gastropods (21 species of snails and six species of slugs) on 19 sites in the CWH biogeoclimatic zone on southeastern and northern Vancouver Island. One large slug, the Dromedary Jumping-slug (*Hemphillia cf. dromedarius*), had never before been reported in Canada.

The greatest diversity and abundance of gastropods occurred at relatively productive, low-elevation stands of mixedwood forest with sword ferns (*Polistichum munitum*) and abundant coarse woody debris. Both species richness and density of gastropods declined with increasing elevation and were lowest at higher elevation sites (greater than 550 m above sea level) with thin, coarse soils and sparse understory vegetation. The use of artificial cover-objects showed promise for obtaining relative abundance estimates of gastropods cost-effectively and with little disturbance to the habitat.

Preliminary results suggest that, during the first year after logging, the relative abundance of gastropods was highest in uncut control stands (either old growth or mature second growth) when compared to patches of trees and the logged area within variable retention blocks. Within the harvested areas, most species were found in the unlogged retention patches, which might act as refuges and sources for dispersal to the harvested portions over time. Further work includes the collection of pre-disturbance data of the relative abundance and species diversity of gastropods at experimental sites.

*The Dromedary Jumping-slug* (Hemphillia cf. dromedarius) *was reported for the first time in Canada during the gastropods piloting study.*

*The Pacific Sideband* (Monadenia fidelis) *is widespread in deciduous and mixedwood forests on the British Columbia coast and is the largest terrestrial snail on Vancouver Island.*

photos by Kristina Ovaska

The Invermere EFMPP, managed by the Ministry of Forests, began in March 1996 as the first pilot. Its main goal is to develop enhanced forest management strategies at the forest level that will (1) re-examine the timing, location and intensity of management practices and the application of various harvesting systems, and (2) better focus relevant forest inventory and research. The objectives of this pilot follow those of the overall EFMPP and accommodate the land use objectives and zoning of the Kootenay-Boundary Land Use Plan.

## *Achievements in 2000/2001*

- Production of five technical report summaries to extend activity findings (available on the pilot website)
- Several presentations by pilot participants at related symposia and workshops throughout BC, including SISCO, the Columbia Mountains Institute annual general meeting and EFMPP technical workshops
- The conduct of operational research trials related to: the development of partial cutting prescriptions that maintain old-growth attributes; growth and yield studies; and an integrated soils project investigating long-term productivity, soil rehabilitation and harvest impacts (see sidebar)
- Publication of several reports and journal articles

Following the 1998 release of the Invermere EFMPP Management Strategies Report (which resulted from the pilot's field projects and analyses), the implementation of strategies is well underway. Several EFMPP strategies have been adopted as management practices and were incorporated into the second timber supply review (TSR2) for the Invermere Forest District base case as part of the Chief Forester's recent AAC determination.

The timber supply analysis phase of the EFMPP yielded several improvements to TSR1 analysis assumptions and data capture methods, and were applied in TSR2 in the following ways:

- The assumed time required to achieve 3-m green-up was reduced to 12 years from a previous range of 15 to 19 years.
- The assumed average regeneration delay was reduced to three years, as opposed to four years for planted regimes and seven years for natural regeneration in TSR1.
- Digitized biophysical mapping produced a refined and reduced estimate of ungulate winter range.
- Mapping of riparian habitat was extended to the entire Invermere TSA. The area of riparian reserve zones increased from 0.7% to 1.1% of the Timber Harvesting Land Base (THLB) and is now accurately depicted in spatially correct locations.
- Reductions to the THLB for problem forest types and steep slopes were spatially identified.
- GIS processing of the TSR2 database illustrated various model runs and facilitated error checking.
- The operability line for timber harvesting, netdowns for environmentally sensitive areas and possibilities for commercial thinning were assessed, and limited opportunities for positively affecting the TSR through these means were found.

In addition to having an impact on the recent TSR2 analysis, the EFMPP has also been successfully involved in leading the development of habitat impact analysis, strategic intensive silviculture planning, strategic ecosystem restoration planning, and several completed and ongoing operational field trials. Application of the Invermere EFMPP results continues in many forms across British Columbia.

photo by Bill Chapman

*Transporting* Hypholoma fasciculare *inoculum to root disease test plots as part of the integrated calcareous soils project.*

### Integrated Calcareous Soils Project

Calcium-rich soils are derived from limestone and occupy about one-third of the forest landbase in southeastern British Columbia. Calcareous soils are characterized by the presence of free calcium and magnesium carbonates and high pH values. About 80% of the soils in the Invermere EFMPP are calcareous, fine-textured and susceptible to compaction during elevated soil moisture conditions. Operationally, these sensitive soils present many challenges and limitations to resource management and have become the subject of four inter-related studies under the Invermere EFMPP.

The primary goals of the Integrated Calcareous Soils Project are to increase the level of knowledge of management effects on calcareous soils, and to provide operationally relevant guidance to field managers to minimize negative effects and improve soil productivity. The components of the project are: (1) a long-term soil productivity trial on compaction and organic matter depletion; (2) an investigation into the effects of root removal treatments and alternative biological control treatments; (3) an assessment of a variety of techniques for rehabilitating disturbance; and (4) documentation of the effects on tree growth and nutrition.

The installation of long-term soil productivity trials has created a replicated research site that will generate operational results for direct application in harvesting operations. The trials will investigate how chemical and physical processes control soil productivity and how the compaction and displacement of calcareous soils affect long-term forest productivity. Currently, there are 12 installations established or planned in BC covering three biogeoclimatic zones. These complement an existing global network of long-term soil productivity trials.

High levels of root rot infection, estimated at 50,000 ha throughout the Invermere Forest District, have called for the initiation of a new research area relating to the interaction of root rot and soil disturbance in calcareous soils. An EFMPP trial is examining the effects on calcareous soils of harvest season, partial harvesting, root-removal treatments and mechanical site preparation. In addition, Armillaria root disease bio-control using *Hypholoma fasciculare* inoculation is underway, which may provide beneficial environmental and economic treatment options if *Hypholoma* is found to be effective.

A soil rehabilitation project underway in the EFMPP will directly impact operational harvesting and post-harvesting activities by providing practical guidance to managers on optimum treatment methods and revegetation techniques on disturbed calcareous soils.

The relationship of soil nutrients to tree growth is the fourth research area. Stump removal by excavator is currently a management option for treating Armillaria root disease, but it displaces the shallow, more fertile topsoil and exposes the unfavourable calcareous subsoil. The Canadian Forest Service is evaluating the potentially detrimental impact this treatment has on nutrient deficiencies or imbalances so that decreases in soil productivity and tree growth can be avoided.

*Gordon Baskerville was a member of the EFMPP steering committee from 1995 to early 2001. The following summary was prepared from a presentation Dr. Baskerville made to the EFMPP Spatial Analysis Techniques workshop in February 2001.*

In the mid-1990s, the forestry community in British Columbia formed several committees to consider the future of forestry in the province. One committee was charged with examining the status of the future wood supply, and with suggesting approaches to mitigate the impact of falldown while retaining non-timber values. By evaluating the impact of various local constraints on future timber availability for a forest region – and the future availability of a range of other values – the committee reached two conclusions fairly quickly. First, the Forest Practices Code provided comprehensive guidance with respect to the local use of tools. Second, the BC forestry industry and the Ministry of Forests possessed an excellent capability to apply those tools in real stands. So what was the problem?

The problem lay in the outdated, single-minded falldown approach to timber management. In the perspective of the mid-1990s, BC needed new forest management strategies that would not only buffer the economy against the falldown (to the extent this is biologically possible), but also sustain the full array of non-timber values.

The committee noted that the then-current BC approach to forest management was somewhat analogous to building a house with a comprehensive building code, but without a clear floor plan of how the completed house would look or function. Instead of following a forest-level "floor plan" and building the new forest while employing local tools, we seemed to be building to the Code, and putting a lot of faith in creating forest patterns and conditions that we had not formally evaluated.

In reviewing forest management processes and practices at two out-of-province forests – Weldwood-Hinton and Weyerhaeuser-Washington – the committee was impressed by the quality of the two emerging forests and by the persuasiveness of the forecasts. The most significant difference between the approaches to management used at these two forests and the approach used in BC was the decision process as it related to forest-level planning.

Both those companies used what might be termed a forest-to-stand approach to planning. They explored and evaluated the probable future conditions of a forest at the scale of a few hundred thousand hectares, using temporal-spatial models. Their evaluation centred on what the future forest would become, with respect to both timber and non-timber values. These processes were similar to those used in BC's TSR, but were considerably more detailed. Their forecasts were spatially explicit, and they managed the forest – cost-effectively and functionally – to make it temporally and spatially match the forecast. In effect, these companies had been practising adaptive management before it was invented.

The committee concluded that neither company was doing anything we could not do in BC. We possessed the same technologies, but we were not using them to design and build the future forest. From this came the idea of the Enhanced Forest Management Pilot Project, with the aims of developing and demonstrating our skills in long-term planning and management at the level of a whole forest, and giving local managers the opportunity to learn the craft and skills of forest design. Indeed, the very best part of the EFMPP process has been that local managers learned what they had to learn, by themselves, for themselves. The technology and its application were developed by the planners, in the context of application in their particular forest.

There is lots of evidence in Canada that the idea of transferring a technical skill such as forest-level planning is unrealistic: a skill has to be acquired, and it is best acquired in context of practising it in your own real, unique forest. As the philosopher Descartes wrote several centuries ago, "No man knows a thing until he discovers it for himself." Remember, what managers need is not advice on how to run some computer programs. Rather, they need to learn how to employ those programs to explore possible futures for their forests, and to design the forests they really want to create. The idea is to design the future forest, then manage in a manner that makes the design become reality.

Has the EFMPP worked? Yes it has! For example, the forest-level planning at Invermere is at a level of the best I have seen in Canada or abroad. The pilot project examples show that there exists in BC the skills to design a future forest, and we have an excellent "building code" to ensure that all the steps of the implementation of forest management are carried out to the highest standards in the country. We are moving in the right direction.

*Internationally recognized long-term soil productivity trial site at Mud Creek in the Invermere EFMPP.*

photo by Greg Anderson

# 2000/2001 Annual Update

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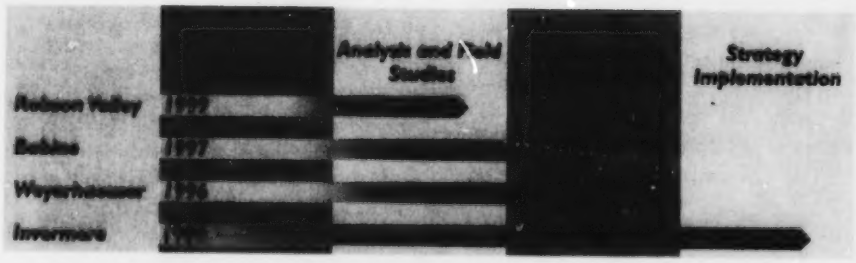
|---|---|---|---|
| Technical Advisory Committee[1] | $31,955 | N/A | N/A |
| Babine EFMPP | $3,481,331 | $750,000 | $378,610[2] |
| Invermere EFMPP | $1,453,438 | $235,000 | $116,500 |

Robson Valley Forest District

EFMPP Babine

**PILOT PROGRESS TO 2001**




EFMPP Weyerhaeuser

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# 2000/2001 Annual Update

## SUMMARY OF FINANCIAL EXPENDITURES AND ALLOCATIONS
(Funding provided by Forest Renewal BC)

| Component | Total Expenditures to End of 1999/2000 | 2000/01 Expenditures | 2001/02 Allocation |
|---|---|---|---|
| EFMPP Steering Committee | $123,042 | [illegible] | [illegible] |
| Technical Advisory Committee[1] | $31,955 | N/A | N/A |
| Robson Valley EFMPP | $73,110 | [illegible] | [illegible][2] |
| Babine EFMPP | $3,481,331 | $750,000 | $378,610[2] |
| Weyerhaeuser TFL 39 EFMPP | $574,540 | $570,000 | [illegible] |
| Invermere EFMPP | $1,453,438 | $235,000 | $116,500 |
| Canfor EFMPP | N/A | N/A | [illegible] |
| Total | $5,737,416 | $2,321,000 | $1,848,000 |

[1] The technical advisory committee no longer functions as an individual committee.

[2] Funding to complete EFMPP activities and communications not covered under the Morice & Lakes IFPA.

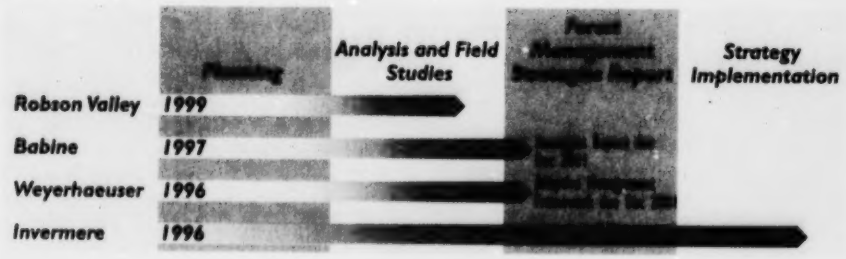
Robson Valley Forest District

EFMPP Babine Forest Products

EFMPP Weyerhaeuser

Invermere Forest District

## PILOT PROGRESS TO 2001

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